

What is claimed is:

- 1 1. A method of addressing a bistable liquid crystal material having incremental
2 reflectance properties disposed between opposed substrates, wherein one substrate
3 has a first plurality of electrodes deposited thereon facing the other substrate which
4 has a second plurality of electrodes disposed thereon, the intersection of the first and
5 second plurality of electrodes forming a plurality of pixels, the addressing method
6 comprising:
7 applying a predetermined number of pulses to the first plurality of
8 electrodes;
9 applying a like number of said predetermined number of pulses to the second
10 plurality of electrodes; and
11 each of said predetermined number of pulses having a different frequency.
- 1 2. The method according to claim 1, wherein said predetermined number of pulses are
2 applied in a set period of time.
- 1 3. The method according to claim 2, further comprising:
2 preparing said liquid crystal material by applying a preparation pulse to the
3 first and second plurality of electrodes, prior to said applying steps.
- 1 4. The method according to claim 2, wherein each of said different frequency pulses
2 are applied to the first and second plurality of electrodes at the same time.
- 1 5. The method according to claim 2, wherein the number of said predetermined
2 number of pulses correspond to a different number of reflectances.
- 1 6. The method according to claim 2, wherein a number of reflectances at each pixel is
2 equal to two raised to the number of said predetermined number of pulses less one,
3 or less a constant value.
- 1 7. The method according to claim 2, wherein said pulses are bipolar.

- 1 8. The method according to claim 2, wherein said pulses are unipolar.
- 1 9. The method according to claim 2, wherein the number of said predetermined
2 number of pulses is equal to a number of incremental reflectances.
- 1 10. The method according to claim 9, wherein said number of incremental reflectances
2 corresponds to a like number of drive periods, each said drive period having a
3 different length of time than all other said drive periods.
- 1 11. The method according to claim 2, wherein said number of said predetermined
2 number of pulses is equal to an exponent number applied to two, wherein the
3 exponent number corresponds to a number of pulses, plus one, or plus a constant
4 value.
- 1 12. The method according to claim 11, wherein said exponent number of pulses
2 corresponds to a like number of drive periods, each said drive period having a
3 different length of time, and wherein the additional pulse corresponds to a
4 preparation pulse.
- 1 13. The method according to claim 12, wherein the shortest drive period is about half
2 the duration of the next longest drive period.
- 1 14. The method according to claim 12, wherein each drive period is at least either about
2 twice as long in duration as the next shortest drive period or about half as short in
3 duration as the next longest drive period.
- 1 15. A liquid crystal display, comprising:
2 a pair of opposed substrates having disposed therebetween a liquid crystal
3 material, one of said substrates having a first plurality of electrodes disposed thereon
4 facing the other of said substrates which has a second plurality of electrodes,
5 wherein the intersection of said first and second plurality of electrodes form a
6 plurality of pixels; and

7 a drive circuit that applies a predetermined number of pulses to said first
8 plurality of electrodes and a like number of pulses to said second plurality of
9 electrodes, each of said predetermined number of pulses having a different
10 frequency.

1 16. The liquid crystal display according to claim 15, wherein said drive circuit applies
2 said predetermined number of pulses in a set period of time.

1 17. The liquid crystal display according to claim 15, wherein said drive circuit applies
2 each of said different frequency pulses to said first and second plurality of electrodes
3 at the same time.

1 18. The liquid crystal display according to claim 15, wherein said liquid crystal material
2 has incremental reflectance properties and wherein the number of said
3 predetermined number of pulses correspond to a different number of reflectances.

1 19. The liquid crystal display according to claim 15, wherein said liquid crystal material
2 has incremental reflectance properties and wherein the number of said
3 predetermined number of pulses is equal to a number of incremental reflectances.

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